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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,552	10/15/2001	Hank E. Millet	031500487DVA	4193

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EXAMINER	
FREAY, CHARLES GRANT	
ART UNIT	**PAPER NUMBER**
3746	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/977,552	MILLET ET AL.	
	Examiner	Art Unit	
	Charles G. Freay	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-22,26-28,30,32-34,48-50 and 52-68* is/are pending in the application.

4a) Of the above claim(s) *50,53,54 and 59-64* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-22,26-28,30,32-35,48,49,52 and 65-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the Request for Continued Examination of October 30, 2007. In making the below rejections the examiner has considered and addressed each of the applicant's arguments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 52, 19, 20, 21, 22, 26-28, 30, 32, 33, 48, 55-58 and 65-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Centers et al (USPN 6,471,485, hereafter Centers).

Centers discloses a compressor system and control system comprising a compressor(s) (1002) and an electronic control system (1004) that is analogous to the claimed control block. The device includes a motor (100) and a shell (not enumerate). The control block includes a microprocessor (col. 5 ln. 67) and there is memory (Fig. 5B and the first two full paragraphs of col. 19). The control block (1004) is in communication with the compressor (1002). Multiple compressors (1002) can be

controlled at the same time, in which case multiple electronic control systems are linked via network in a peer-to-peer configuration, see abstract. A remote computer used for monitoring, controlling, downloading firmware and software, and communicating compressor operation data constitutes a system master. As set forth in col. 25 line 42 through col. 26 line 27 the system master is in communication with the electronic control system and is operative to receive and send stored compressor configuration information to and from the control block. It is obvious that the system master initializes the compressor system for a specific use and is therefore capable of performing the desired result or method step set forth in claim 32. The random access memory chips (510) are used for storage of operating data, i.e. compressor configuration information, history data, and parameter calculation results, see col. 19 33-37. All operating parameters, service information, shut down records, sensor input information (including temperature and pressure data), are transmitted from the electronic control system (1004) to the system master computer. All of the stored operating parameters of the electronic control system (1004) can be modified by the system master, see col. 15 lines 5-17 which sets forth that the remote controller accesses all information of the electronic control system. It is clear that compressor identification data is stored since Centers at col. 6 line 66 through col. 7 line 8 refer to the manufacturers data for the compressor and col. 7 lines 37 - 45 make reference to the compressor model. Event history data is also stored for a variety of conditions (for example col. 7 lines 8-13 or col. 9 lines 57 and 58 where the number of cycles per minute are noted). Cycle time and

number data (col. 9 lines 49-65). Application data such as end user pressures and temperatures (col. 14 lines 27-36).

With respect to claims 19 and 20, the control system uses pressure and temperatures sensors, among others, to detect or predict actual shutdown conditions based on the operating state of the compressor (1002). These signals are transmitted to the system master, and are indicative of an operating characteristic of the compressor, see col. 9 lines 21-26.

With respect to claim 27 there is no explicit teaching of the control block/control system (1004), including a pluggable gateway, however as disclosed in col. 13 line 65, and col. 14 lines 24-28, the control system (1004) includes a network interface connection (2013). Among its multiple circuit boards, for connection of the control system and the compressor to the network, the system master and the other compressor. This data interface constitutes a gateway board. Centers includes a plurality of connectors (J1, J2, J8, J11) and microprocessor boards (500), annuciator boards (600) and ARCnet peer-to-peer network communication interface circuits, which constitute communication interfaces or gateways.

With respect to claim 30 note at least the passage previously references at col. 14 line 62 through col. 15 line 32, among other passages.

With respect to claims 52, 55-58, 66 and 67 and the recitation of the types of data (for example compressor identification data) or to recitation of a specific data element (for example refrigerant data) as noted above Centers discloses the limitations as claimed. However, it is additionally noted that the reference to the type of data is

directed to nonfunctional descriptive material and does not alter how the data is transmitted, received or stored between the control block and the system master. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack,* 703 F.2d 1381, 1385, 217 USPQ 401, 404 (fed. Cir. 1983); *In re Lowry,* 32 F.3d 1579, 32 USPQ2d 1031 (fed. Cir. 1994).

From the teachings of Centers one of ordinary skill in the art would understand how to transmit receive and store any type of data between the control block and the system master because the subjective interpretation of the data does not patentably distinguish the claimed invention.

With regards to claims 19, 22, 30 and 52 and the limitations following the recitation of "operable to..." in each of those claims the examiner notes that the limitations following this phrase set forth a limitation or action which the control block or system master must be capable of performing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Centers et al.

As set forth above Centers et al discloses an apparatus comprising, a compressor, a control block, a memory accessible by the control block and associated with the compressor and storing an image of compressor data, and a system master which receives from the control block the image, constructs a new image and sends the new image back to the control block. Centers does not specifically use the word "request" when setting forth that the system master interacts with the control block or set forth that the image is placed in the same location in memory. At the time of the invention one of ordinary skill in the art would have found it obvious for the system master to make a request when the remote PC operator intends to perform and initiate its actions. It also would have been obvious to store the information in memory at the same place as the previous copy was stored to make retrieval of the new data simple.

Claims 34 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Centers in view of Culp III et al (USPN 5,975,854, hereafter Culp).

As set forth above Centers discloses the invention substantially as claimed but does not disclose a vibration sensor or that the control block is mounted on the shell. Culp teaches of a compressor (10) with a terminal box assembly (28). The box contains a protection module (86), which is analogous to the claimed inventions control block. The protection module, which includes vibration sensors, power supply circuits, and control circuits (Fig.s 4 and 7), is mounted on the compressor shell via the terminal box (col. 6 line 61-62). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Centers device by mounting the control block and vibration sensors of Culp on the shell in order to integrate the unit and create a smaller footprint.

Response to Arguments

Applicant's arguments filed October 30, 2007 have been fully considered but they are not persuasive. The applicant argues against the rejections set forth under 35 USC 102(b) because the applicant states that there is no mention of an image of compressor identification data or compressor configuration data. The applicant further argues that the examiner has not identified where Centers states that it stores the image in memory and where the control block is operable to transmit to the system master and receive from the system master a modified or new image. The examiner disagrees. The rejection specifically sets forth and makes reference to the locations in the Centers

disclosure which discuss compressor identification (col 6 line 66-col. 7 line 8, col. 7 lines 37-45) and configuration data being stored (col. 25 lines 63-67). With respect to the claim language setting forth that the control block is operable to transmit the image to the system master, receive from the system master at least one of a modified copy or a new image and to store the new image. As enumerated in the rejection Centers sets forth repeatedly the required information being transmitted back and forth, and being stored in memory. Furthermore it is noted that the claim only sets forth that the control block is operable to accomplish the noted material. For the control block to be operable to do this it need only be capable of transmitting, receiving and storing data. Which Centers et al clearly is. The operations which the system master might perform on the data do not limit the control block. As made clear by the applicant the system master is not part of the claimed invention. Operations which the system master might do to the data does not affect the control blocks ability to transmit, receive or store data or "images of the data".

At page 12 of the "REMARKS" section the applicant noted that in his "Response to Arguments," section the examiner states that "Centers does not disclose a control block that transmits a copy of an image of data to a system master and receives either a new image or a modified copy of the data". And note that the applicants agree with the statement. The examiner suspects that the applicant would agree with that statement since it was the examiners summary of what the applicant was arguing. As noted in the "Response to Arguments" and as enumerated above the examiner disagrees. The applicant further argues that Centers et al do not teach that "a copy of an entire image

of 'all information of electronic control system' is transmitted from a control block to a system master. The examiner notes that the recitation of an image of compressor data including compressor identification data and compressor configuration data is not the same as a copy of an entire image of all information of electronic control system. The image set forth in the claims could represent much less than an entire image of all information of electronic control system. For example, the memory could be set forth as storing a first image and a second image with the control block being operable to transmit and receive each separately. Furthermore, even if the claim were limited to sending the complete image the control block would be operable to do this and it can be argued that the passages in Centers would make obvious such a transmission.

The applicant also argues that Centers describes the modifications being described on an individual parameter basis .The examiner notes that Centers at col. 15 lines 7-10 sets forth that "all operating parameters, service information and shutdown records stored in the electronic control system are transmitted to the remote PC". Thus the Centers device is capable of sending all records. With regards to the fine tuning of individual parameters this would still create the modified copy to be transmitted back.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G. Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Charles G Freay
Primary Examiner
Art Unit 3746

CGF
December 22, 2007